

Claims:

1. A linear polyurethane obtained from
 - a) at least one diisocyanate having 2 to 30 carbon atoms and
 - b) at least one aliphatic or cycloaliphatic diol having 2 to 30 carbon atoms, to whose carbon chain at least one carboxyl group is covalently bonded.
2. A polyurethane according to claim 1, which additionally contains
 - c) radicals of at least one aliphatic, cycloaliphatic or cycloaliphatic-aliphatic diol, of at least one oligomeric or polymeric oxaalkylene glycol, of a polyesterdiol, polycarbonatediol, polylactonediol or of a diol based on polybutadiene or polyisoprene.
3. A linear, crosslinkable polyurethane obtained from
 - a) at least one diisocyanate having 2 to 30 carbon atoms,
 - b) at least one aliphatic or cycloaliphatic diol having 2 to 30 carbon atoms, to whose carbon chain at least one carboxyl group is covalently bonded, and some or all of said carboxyl groups have been esterified with an olefinically unsaturated C₃-C₈alcohol or with the glycidyl ester of an olefinically unsaturated C₃-C₈carboxylic acid, and
 - c) optionally at least one aliphatic or cycloaliphatic diol having 2 to 30 carbon atoms, to whose carbon chain at least one carboxyl group is covalently bonded.
4. A linear, crosslinkable polyurethane according to claim 3, which additionally contains
 - d) radicals of at least one aliphatic, cycloaliphatic or cycloaliphatic-aliphatic diol, of at least one oligomeric or polymeric oxaalkylene glycol, of a polyesterdiol, polycarbonatediol, polylactonediol or of a diol based on polybutadiene or polyisoprene.
5. A composition comprising
 - a) a crosslinkable polyurethane according to claim 3 or 4,
 - b) an initiator for the thermal crosslinking of the olefinic groups, or
 - c) a photoinitiator, or
 - d) an initiator for the thermal crosslinking of the olefinic groups and a photoinitiator,

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and

- e) optionally a diluent.
6. A composition according to claim 5, which additionally contains
 - f) a polymeric binder.
 7. A composition according to claim 5 or 6, which additionally contains crosslinking agents which are capable of reacting with the carboxyl groups.
 8. A composition according to claim 7, wherein the crosslinking agent is a polyepoxide having at least 2 epoxide groups in the molecule.
 9. A composition according to claim 8, which additionally contains a polycarboxylic acid or carboxylic anhydrides for the thermal crosslinking of the polyepoxides.
 10. A moulding comprising the cured composition according to any of claims 5 to 9.
 11. A material in which at least one surface is coated with a cured, optionally photostructured composition according to any of claims 5 to 9.
 12. A process for the production of solder masks on a printed circuit, comprising the steps
 - a) coating of a circuit board with the photocrosslinkable composition according to the invention,
 - b) drying of the layer on the substrate,
 - c) imagewise exposure of the dried layer under a negative photomask or by means of laser inscription,
 - d) treatment of the coated layer with a developer for removing the unexposed parts, and
 - e) optionally heat-curing of the developed layer.
 13. A use of the composition according to any of claims 5 to 9 as moulding material for the production of mouldings, as coating material for coating surfaces, as adhesive for bonding materials or as an etch resist or solder masks, for gap filling or filling of cavities or as a liquid dielectric in the production of circuit boards.